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In re Application of : Cigelske, Jr., James J.
Serial No. : 10/811,520
Filed : March 29, 2004
For : Electrical Shield for Welding Apparatus
Group Art No. : 1725
Examiner : Kevin P. Kerns

CERTIFICATION UNDER 37 CFR 1.8(a) and 1.10

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REPLY BRIEF RESPONSIVE TO EXAMINER'S ANSWER
MAILED APRIL 24, 2008

Dear Sir:

This Reply Brief is being filed in response to the Examiner's Answer mailed on April 24, 2008.

REPLY BRIEF

In the Examiner's Answer mailed April 24, 2008, the Examiner maintained the rejection of claims 9-11 and 38-43 and dismissed Appellant's arguments set forth in the Appeal Brief of October 1, 2007. The assertions set forth in the Examiner's Answer are addressed herebelow.

Rejection Under 35 U.S.C. §103(a) Over Bowsky et al.**Claim 9**

In the Examiner's Answer, the Examiner maintained the rejection of claim 9 under 35 U.S.C. §103(a) as being unpatentable over Bowsky et al. stating that "Bowsky et al. disclose a 'generally inverted U-shaped configuration' of plastic shield 8" and that "the shield 8 surrounds three pins 7...." *Examiner's Answer*, April 24, 2008, p. 5. Initially, Appellant would note that this assertion by the Examiner is in direct contradiction to the position previously set forth that "Bowsky et al fail to teach the shield comprising a generally inverted U-shaped configuration" but that "Bowsky et al disclose [a] shape and number of walls [that] can be var[ied] (col. 4, lines 25)." *Final Office Action*, April 25, 2007, p. 2-3. Regardless of this, Appellant believes that the Examiner's newly asserted interpretation of Bowsky et al. mischaracterizes the disclosure thereof. Specifically, Appellant believes that Bowsky et al. fails to teach or suggest a generally inverted U-shaped shield that is adapted to at least partially surround an electrical stud, as called for in claim 9.

Claim 9 specifically calls for a plurality of elements configured to form an inverted U-shaped shield. That is, claim 9 calls for a first planar side having an upper edge; a second planar side having an inner edge, the second planar side being oriented generally perpendicular to the first planar side and extending inwardly from the upper edge of the first planar side; and a third planar side oriented in a plane generally parallel to the plane of the first planar side and extending from the inner edge of the second planar side to form the inverted U-shape. In maintaining the rejection of claim 9, the Examiner stated that:

[S]hield 8 is of 'generally' U-shape, with the 'U' lying on its left side in the figure [Fig. 1]. Regarding the various claimed planar sides and edges of the appellant's shield, the examiner respectfully disagrees with the appellant from the point of view that these planar sides and edges are allegedly not disclosed and/or suggested by Bowsky et al. Although the examiner agrees that the shield of the appellant's Figure 4 is configured in a shape rather different from that of Figure 1 of Bowsky et al., such planar sides and edges are clearly

present (and are individually assignable despite the absence of reference number in the shield 8 of Bowsky et al.).
Examiner's Answer, supra at 5-6.

Appellant disagrees with the Examiner's characterization of what is taught in Bowsky et al. That is, contrary to the Examiner's assertion, Bowsky et al. does not teach that "shield 8" at least partially surrounds electrical conductor pins 7. Instead, Bowsky et al. discloses a terminal assembly 2 that includes conductor pins 7 and is sealed to a wall 4 to extend into a chamber 6. *Bowsky et al.*, Col. 3, Ins. 17-21. A plastic block 8 that includes three spaced over-surface open-ended cylindrical wall shields 14 is configured to attach to the conductor pins 7. *Bowsky et al.*, Col. 4, Ins. 12-24. Each cylindrical wall shield 14 extends coextensively with and corresponds to a conductor pin 7 to minimize possible through-space arcing between the pins. *Bowsky et al.*, Col. 4, Ins. 12-24.

Bowsky et al., however, fails to teach or suggest a generally inverted U-shaped shield that is adapted to at least partially surround a conductor pin 7, as called for in claim 9. That is, no part of block 8 partially surrounds any of conductor pins 7. No such teaching is provided in Bowsky et al., and a review of Fig. 1 therein clearly shows that block 8 does not in any way surround conductor pins 7. Based on the teachings of Bowsky et al. (i.e., the specification and the drawings), it is illogical to conclude that the generally U-shaped block 8 partially surrounds conductor pins 7 and would prevent arcing between conductor pins 7. Rather, it is only the circular shaped wall shields 14 that are placed about conductor pins 7 to prevent electrical arcing. This is not what is called for in claim 9, which specifically recites that it is a generally inverted U-shaped shield that at least partially surrounds an electrical stud. There is simply no teaching provided in Bowsky et al. of such a shield.

In fact, were the shield(s) in Bowsky et al. that "at least partially surround" the conductor pins 7 (i.e., wall shields 14) in an inverted U-shape, such a configuration would provide less protection for electrical arcing between conductor pins 7. That is, for example, were wall shield 14 that surrounds the top conductor pin 7 in an inverted U-shape, less shielding would be provided between the top conductor pin and the lower two conductor pins as compared to a circular shield that completely surrounds the top conductor pin. *See Bowsky et al.*, Col. 4, Ins. 12-24; see also Figs. 1 and 2. As such, configuring wall shields 14 in an inverted U-shape would be detrimental to the performance of the wall shields, and there is

thus no reason why one skilled in the art would make the modification to wall shields 14 set forth by the Examiner.

In light of the above, claim 9 and the claims dependent therefrom are patentably distinct over Bowsky et al. Appellant therefore respectfully requests that the Board withdraw the rejection claim 9 and its dependents.

Claim 11

In maintaining the rejection of claim 11, the Examiner stated that “Bowsky et al. disclose a plastic material, which would comprise a thermoplastic film (i.e., smooth covering) on its surface to protect the underlying plastic body.” *Examiner’s Answer*, supra at 8. However, no such teaching is specifically provided in Bowsky et al. That is, Bowsky et al. merely discloses that wall shields may be formed of the same material as block 8, which can be comprised of “any one of a number of known plastic compounds, advantageously with hard, insulative physical properties.” *Bowsky et al.*, Col. 3, lns. 45-50. Claim 11 specifically calls for the shield of claim 9 to be formed of a biaxially-oriented thermoplastic film having a thickness of about 10-15 thousandths of an inch. The Examiner has provided no indication of where Bowsky et al. discloses such a construction or why it would have been obvious for one of skill in the art to use a biaxially-oriented thermoplastic film in forming the electrical shield of the present invention. As Bowsky et al. fails to teach or suggest a shield formed of a biaxially-oriented thermoplastic film, claim 11 is patentably distinct over the cited reference.

Claim 38

The Examiner maintained the rejection of claim 38, stating that “the shield 8 of Bowsky et al. [] includes first, second, and third planar sides affixed to an internal surface of a high voltage apparatus (see Figure 1)....” *Examiner’s Answer*, supra at 8. As set forth in claim 38, the first planar side, the second planar side, and the third planar side of the shield are affixed to an internal surface of a welding apparatus housing. Contrary to the Examiner’s assertion, Bowsky et al. fails to teach a shield affixed to the internal surface of a welding apparatus. That is, block 8 and wall shields 14 are not, in any manner, affixed to an internal surface of a welding apparatus housing. Instead, the device formed by block 8 and wall shields 14 is merely placed over conductor pins 7. *See Bowsky et al.*, Col. 4, lns. 16-20 and Fig. 1. There is no teaching or suggestion, however, of block 8 and wall shields 14 being affixed to wall 4 of the housing in Bowsky et al. As such, claim 38 is patentably distinct over the cited reference.

Claim 39

With respect to claim 39, the Examiner asserted that “Bowsky et al. disclose the ‘plurality of ribs’ in the form of the mating, cup-shaped body 3 of the terminal assembly 2 (Figure 1) for attachment with the cylindrical wall shields 14 of the plastic shield 8.” *Examiner’s Answer*, supra at 8. Claim 39 calls for at least one of the first planar side, the second planar side, and the third planar side of the electrical shield to be interfitted with a plurality of ribs on the internal surface of the housing to secure it thereto. Bowsky et al. in no way teaches or suggests that one of the planar sides of block 8 is interfitted with a plurality of ribs on the internal surface of the housing. There is simply no such teaching provided in Bowsky et al., and Fig. 1 therein clearly shows that a planar side of block 8 is not and cannot be interfitted with any “ribs.” As such claim 39 is patentably distinct over the cited reference.

Claims 40-43

Regarding claims 40-43, and specifically with respect to claim 40, the Examiner stated that “the first planar side of Bowsky et al. (top rectangular region of the shield 8 of Figure 1) is positioned intermediate an electrical stud (one or more of the conductive pins 7) and the housing of the apparatus while in the connected/engaged position of pins 7 and shield 8.” *Examiner’s Answer*, supra at 8-9. Appellant disagrees. As shown in Fig. 1 of Bowsky et al., the planar sides of block 8 are not positioned intermediate one or more of the conductive pins 7 and the housing. As set forth above with respect to claim 9, block 8 does not in any way surround conductor pins 7, and as such, a planar side thereof cannot be said to be positioned intermediate one or more of the conductive pins 7 and the housing. Such an assertion is simply illogical. As set forth above, it is only the circular shaped wall shields 14 that are placed about conductor pins 7 to prevent electrical arcing.

Furthermore, with respect to the Examiner’s statement that “appellant has only provided an argument addressing claim 40” (see *Examiner’s Answer*, supra at 8) and the implication that Appellant did not set forth arguments directed to claims 41-43, Appellant disagrees. As set forth in the Appeal Brief, and additionally for the reasons set forth above, the positioning of the first, second, and third planar sides of the electrical shield with respect to the electrical stud (as called for in claims 40-42) is simply not taught or suggested in Bowsky et al. Furthermore, with respect to claim 43, which calls for the lower planar side of the shield to be oriented in a plane generally perpendicular to the third planar side and

connected to the lower edge of the third planar side, and extend inwardly toward an internal space of the welding apparatus housing, Bowsky et al. fails to teach or suggest such limitations. In light of the above, claims 40-43 are patentably distinct over the cited reference.

In view of the above remarks, Appellant respectfully submits that the Examiner has provided no supportable position or evidence that claims 9-11 and 38-43 are not patentable. As argued above, (1) Bowsky et al. fails to teach or suggest each and every element as called for in the present claims, (2) the Examiner has mischaracterized the teachings of Bowsky et al., and (3) the Examiner has provided no reasoning as to why it would have been obvious to one of ordinary skill in the art to modify Bowsky et al. to achieve the present invention, but rather, the Examiner's modification of the cited reference to achieve the current invention is based on improper hindsight reasoning. Accordingly, Appellant believes claims 9-11 and 38-43 are patentably distinct thereover. Accordingly, Appellant respectfully requests that the Board find claims 9-11 and 38-43 patentable over the prior art of record, direct withdrawal of all outstanding rejections and direct the present application be passed to issuance.

Respectfully submitted,

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